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10/677,090	09/30/2003	David Bumstead	HAMMP003	4082

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EXAMINER	
BURGESS, BARBARA N	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/677,090	**Applicant(s)** BUMSTEAD ET AL.
	Examiner BARBARA N. BURGESS	**Art Unit** 2457

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _05 December 2008_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _8-15-08_.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Amendment filed December 5, 2008. Claims 1-22 are presented for further examination.

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on August 15, 2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stammers et al. (hereinafter “Stammers”, US Patent 7,082,121 B1) in view of Strathmeyer et al. (hereinafter “Strath”, US Patent Application Publication 2004/0120502 A1) and further view of Reynolds et al. (hereinafter “Reynolds”, US Patent Publication 2003/0126195 A1).

As per claims 1, 14, Stammers discloses a method and computer program product for establishing a connection between a first endpoint participating in a first protocol and a second endpoint participating in a second protocol including:

establishing a virtual service endpoint participating in the first protocol on a network device that is connected to the first endpoint and the second endpoint, wherein the virtual service endpoint is configured to provide interworking between the first protocol and the second protocol (column 1, lines 50-60, column 4, lines 1-12);

forwarding to the second endpoint communication directed from the first endpoint to the virtual service endpoint (column 4, lines 52-55, 59-65);

a first protocol specific network and a second protocol specific network that are connected to the network device are not aware of the virtual service endpoint (column 1, lines 39-45, 50-61, column 2, lines 43-45, column 3, lines 9-15, 38-45).

Stammers does not explicitly disclose:

a mapping from a first interface associated with the first protocol to the first virtual interface;

a mapping from the first virtual interface to a second virtual interface;

a mapping from the second virtual interface to a second interface associated with the second protocol.

However, in an analogous art, Strath teaches receiving calls at a virtual endpoint for routing to another endpoint. Standard-based interfaces are used to allow calls to be managed. The node computers at the agents communicate with each other according to one or more communication protocols (paragraphs [0022, 0030-0031, 0056-0057, 0060, 0064]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Strath's first and second virtual interfaces associated with a first and second protocol in Stammers's method enabling agents to communicate with each other.

Stammers, in view of Strath, does not explicitly disclose:

using a forwarding table that includes the above mappings.

However, the use and advantages of such forwarding table is well-known to one of ordinary skill in the art as evidenced by Reynolds (paragraphs [0869, 0871-0873]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Reynolds's forwarding table in Stammers's method in order to notify the server of virtual connection changes made.

As per claim 2, Stammers discloses a method as recited in claim 1, wherein the virtual service endpoint participates in the second protocol (column 3, lines 56-62).

As per claim 3, Stammers discloses a method as recited in claim 1, wherein the virtual service endpoint includes a first half virtual service endpoint and a second half virtual service endpoint and wherein the first half virtual service endpoint participates in the first protocol and wherein the second half virtual service endpoint participates in the second protocol (column 5, lines 10-23).

As per claim 4, Stammers discloses a method as recited in claim 1, wherein:

the first endpoint participates in a first protocol-specific network (column 2, lines 46-50);

the second endpoint participates in a second protocol-specific network (column 2, lines 56-60);

the virtual service endpoint presents a first protocol-specific service endpoint to the first protocol-specific network, and presents a second protocol-specific service endpoint to the second protocol-specific network (column 3, lines 15-25).

As per claim 5, Stammers discloses a method as recited in claim 1, wherein forwarding to the second endpoint includes using a forwarding table (column 4, lines 5-11).

As per claim 6, Stammers discloses a method as recited in claim 1, wherein forwarding to the second endpoint includes using a forwarding table that includes a real interface and a corresponding virtual interface (column 4, lines 10-17).

As per claim 7, Stammer discloses a method as recited in claim 1, wherein forwarding to the second endpoint includes using a forwarding table that includes a real interface and a corresponding virtual interface for the first endpoint and a real interface and a corresponding virtual interface for the second endpoint (column 4, lines 5-17).

As per claim 8, Stammers disclose a method as recited in claim 1, wherein forwarding to the second endpoint includes:

connecting the virtual service endpoint to the first endpoint (column 3, lines 56-63);

locating the virtual service endpoint in a forwarding table and finding the second endpoint (column 4, lines 5-15);

connecting the data path between the two endpoints (column 4, lines 35-45).

As per claim 9, Stammers discloses a method as recited in claim 1, wherein the virtual service endpoint includes a first half virtual service endpoint and a second half virtual service endpoint and wherein the first half virtual service endpoint participates in the first protocol and wherein the second half virtual service endpoint participates in the second protocol, wherein forwarding to the second endpoint includes:

establishing a connection between the first endpoint and the first half virtual service endpoint (column 3, lines 56-63);

establishing a connection between the second endpoint and the second half virtual service endpoint (column 3, lines 8-15);

cross connecting the data path between the endpoints of the two connections (column 4, lines 35-45).

As per claim 10, Stammers disclose a method as recited in claim 1, wherein the virtual service endpoint maintains an identifier associated with an interface (column 3, lines 37-

45).

As per claim 11, Stammer discloses a method as recited in claim 1, wherein the first protocol is ATM (column 3, lines 59-61).

As per claim 12, Stammer discloses a method as recited in claim 1, wherein the network device is an edge switch or a gateway switch (column 3, lines 9-12).

As\ per claim 13, Stammer discloses a network device for establishing a connection between a first endpoint participating in a first protocol and a second endpoint participating in a second protocol including:
a virtual service endpoint participating in the first protocol configured to:
provide interworking between the first protocol and the second protocol (column 1, lines 50-60, column 2, lines 1-20);
forward to the second endpoint communication directed from the first endpoint to the virtual service endpoint (column 1, lines 50-60, column 4, lines 1-12);
wherein the network device is connected to the first endpoint and the second endpoint (column 4, lines 52-55, 59-65);
a first protocol specific network and a second protocol specific network that are connected to the network device are not aware of the virtual service endpoint (column 1, lines 39-45, 50-61, column 2, lines 43-45, column 3, lines 9-15, 38-45).
Stammers does not explicitly disclose:

a mapping from a first interface associated with the first protocol to the first virtual interface;

a mapping from the first virtual interface to a second virtual interface;

a mapping from the second virtual interface to a second interface associated with the second protocol.

However, in an analogous art, Strath teaches receiving calls at a virtual endpoint for routing to another endpoint. Standard-based interfaces are used to allow calls to be managed. The node computers at the agents communicate with each other according to one or more communication protocols (paragraphs [0022, 0030-0031, 0056-0057, 0060, 0064]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Strath's first and second virtual interfaces associated with a first and second protocol in Stammers's method enabling agents to communicate with each other.

Stammers, in view of Strath, does not explicitly disclose:

using a forwarding table that includes the above mappings.

However, the use and advantages of such forwarding table is well-known to one of ordinary skill in the art as evidenced by Reynolds (paragraphs [0869, 0871-0873]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Reynolds's forwarding table in Stammers's method in order to notify the server of virtual connection changes made.

As per claim 15, Stammer does not explicitly disclose a method as recited in claim 1, wherein the first virtual interface and the second virtual interface are identical. However, in an analogous art, Strath teaches receiving calls at a virtual endpoint for routing to another endpoint. Standard-based interfaces are used to allow calls to be managed. The node computers at the agents communicate with each other according to one or more communication protocols (paragraphs [0022, 0030-0031, 0056-0057, 0060, 0064]).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate Strath's first and second virtual interfaces associated with a first and second protocol in Stammers's method enabling agents to communicate with each other.

As per claim 16, Stammer discloses a method as recited in claim 1, wherein the first endpoint is not aware of the second protocol and the second endpoint is not aware of the first protocol (column 1, lines 39-45, 50-61, column 2, lines 43-45, column 3, lines 9-15, 38-45).

As per claim 17, Stammer discloses a method as recited in claim 1, wherein the virtual service endpoint appears as a first protocol specific service endpoint to the first protocol specific network (column 1, lines 39-45).

As per claim 18, Stammer discloses a method as recited in claim 17, wherein the virtual service endpoint appears as a second protocol specific service endpoint to the second protocol specific network (column 3, lines 9-15).

As per claim 19, Stammer discloses a method as recited in claim 1, wherein:
the virtual service endpoint includes the first endpoint and the second endpoint;
the first endpoint includes the first interface and the first virtual interface; and
the second endpoint includes the second interface and the second virtual interface (column 9, lines 38-45).

As per claim 20, Stammer discloses a method as recited in claim 19, wherein the virtual service endpoint is located on the network device (column 3, lines 9-20, 59-65).

As per claim 21, Stammer discloses a method as recited in claim 1, wherein the virtual service endpoint is located on the network device (column 3, lines 9-20, 59-65).

As per claim 22, Stammer discloses a method as recited in claim 1, wherein:
a third protocol specific network is connected to the network device (column 4, lines 53-60);
the first endpoint includes a mapping from a third interface associated with the first protocol to a third virtual interface (column 4, lines 53-65);

the second endpoint includes a mapping from the third virtual interface to a fourth interface associated with the third protocol (column 4, lines 60-67).

Response to Arguments

4. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BARBARA N. BURGESS whose telephone number is (571)272-3996. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Barbara N Burgess/
Examiner, Art Unit 2457

March 20, 2009

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457

Barbara N Burgess
Examiner
Art Unit 2457